REMARKS

Applicants cancel claims 6 and 17. Claims 1-5, 7-16, and 18-22 remain pending in the application. Applicants amend claims 1 and 12 to incorporate features that correspond to those of claims 6 and 17, respectively. No new matter has been added.

Claims 1-5, 7-8 11-16, 18-19, and 22 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,058,151 to Kim in view of U.S. Patent Application Publication No. 2002/0017948 to Hyakudai et al. claims 6, 9-10, 17, and 20-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim, Hyakudai et al., and further in view of U.S. Patent Application Publication No. 2003/0063678 to Crawford. Applicants amend claims 1 and 12 to incorporate features that correspond to those of claims 6 and 17, respectively, and respectfully traverse the rejections.

The Examiner cited Hyakudai et al. as a new combining reference that allegedly suggest the clamed feature of calculating a correlation value between a guard interval and data of an incoming signal, which the Examiner conceded was absent from the disclosure of Kim. The Examiner conceded that Kim and Hyakudai et al. fail to disclose or suggest the claimed features of modifying a number of frames to be averaged and a width of a control step of a correlation value, originally recited in claims 6 and 17. The Examiner cited Crawford as a further combining reference that allegedly suggests these features.

Crawford only describes, however, a system of adjusting the width of a closed loop tracking bandwidth. The cited portions of Crawford only include such description of adjusting the width of a closed loop tracking bandwidth, and mere description of "averaging the phase errors to determine the aggregate phase error for the entire data symbol." Paragraph [0077] of Crawford cited by the Examiner.

Thus, Crawford, as cited and relied upon by the Examiner-and, correspondingly, the proposed combination of references-fails to disclose or suggest the claimed features of ***modifying*** a number of frames to be averaged and the width of a ***control step of a correlation value***.

In other words, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Kim, Hyakudai et al., and Crawford, such a combination would still have failed to disclose or suggest,

> "[a]n automatic frequency control device in an OFDM (Orthogonal Frequency Divisional Multiplexing) system, comprising:
> a correlation unit calculating a correlation value between a guard interval and data of an incoming signal;
> an averaging unit averaging correlation values across a plurality of symbols and a plurality of frames;
> a peak position detecting unit detecting a peak position of the averaged correlation value; and
> a control unit controlling an oscillator using a prescribed step, based on the detected peak position, wherein
> if the number of detected peak positions with error greater than expected exceeds a prescribed number, the number of frames to be averaged and ***the width of the cotnrol step of a correlation value are modified***," as recited in claim 1.
> (Emphasis added)

Applicants refer the Examiner to Figs. 11-12 and their corresponding description in the specification for exemplary embodiments, "soft judgment," of the claimed invention.

Accordingly, Applicants respectfully submit that claim 1, together with claims 2-5 and 7-11 dependent therefrom, is patentable over Kim, Hyakudai et al., and Crawford, separately and in combination, for at least the foregoing reasons. Claim 12 incorporates features that correspond to those of claim 1 cited above, and is, therefore, together with claims 13-16 and 18-22 dependent therefrom, patentable over the cited references for at least the same reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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DTC:tb